Researching & Delivering Non-Traditional Systems Engineering Education

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Agenda

- Not-so-unique SE training requirements
- In-depth analysis of US SE curriculum
- Quality SE curriculum in non-traditional delivery
- Implementing SE training
- Future Challenges

Background

- DOD Agency working to quickly build program management and systems engineering skills in order to succeed in its modernization efforts – mandated by Congress
- Systems Engineering Training Program funded as R&D effort to build a robust SE curriculum for DOD employees

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Program Requirements

A Systems Engineering Training Program that is:

- Commercially provided
- Portable in nature
- Flexible in delivery
- Modular in formatting

… That also provides:

- Links to industry-recognized certification
- An option for graduate-level credit

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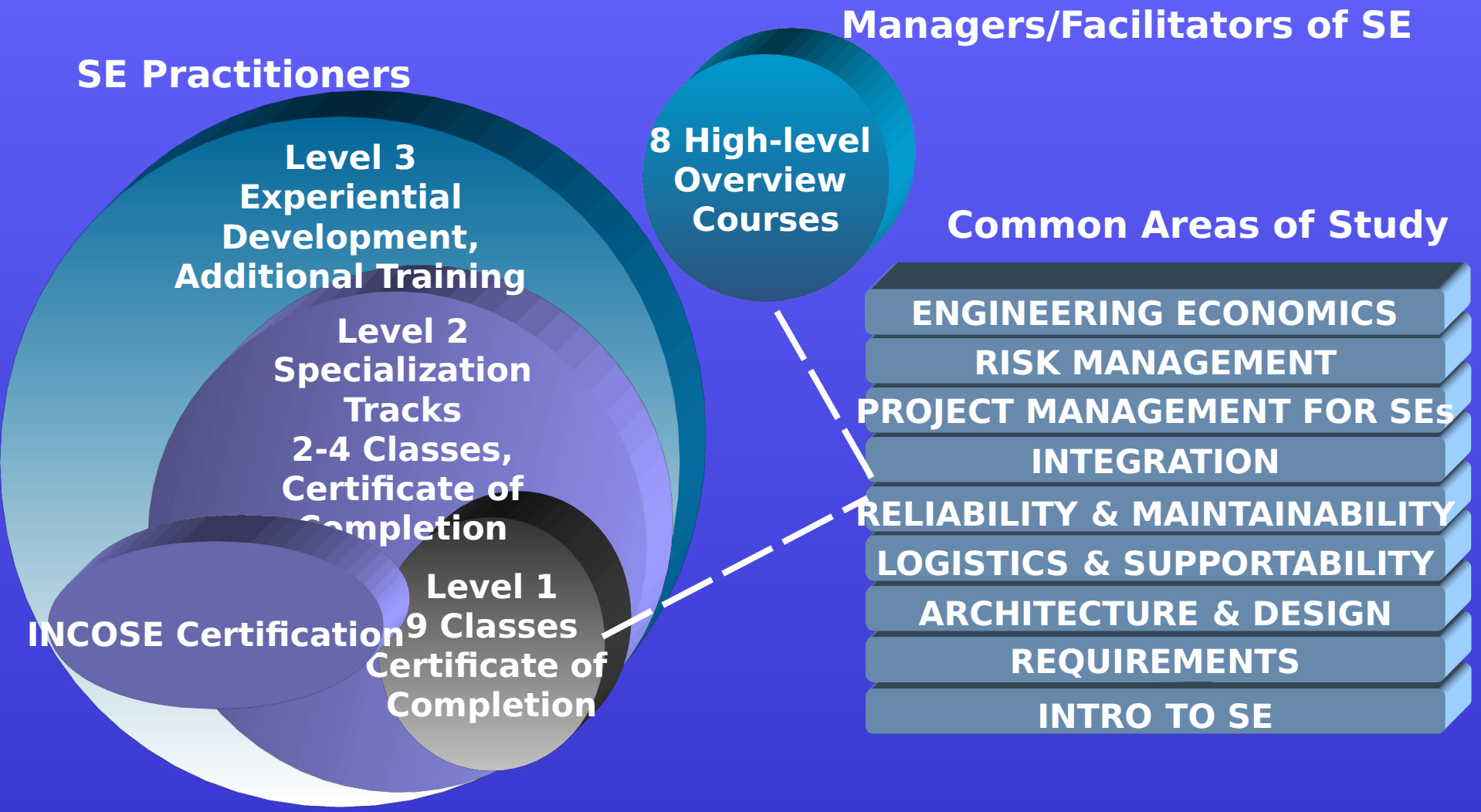
Findings

Additional requirements identified through multiple interviews with Systems Engineers, Acquisition Managers, Managers of Engineers and other Technical Staff Members:

- Local, lecture-based training
- Short classes and minimal time out of the office
- Separate and distinct training for SE Practitioners and their Managers/Facilitators
- External certification

Program Design



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Research

US study of sources for SE education & training; both commercial and private, accredited and non-accredited; focused on agency-specific requirements

- 85 training sources initially reviewed
- 28 sources found to have relevant SE training
- Further analysis and source interviews produced a final “Top 10” that could meet all or some of the client’s requirements

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Source Selection

Additional interviews of remaining training sources conducted; client approval of program that:

- Provides portable, modular & flexible SE training in nine areas of study
- Incorporates curriculum from four of the top five SE schools identified in the study
- Entails two tracks of training – Practitioner and Manager/Facilitator tracks
- Possibly ties to INCOSE Certification

Future of SETP

Mentoring Program,
Internships,
Community Assignments,
Special
Projects, etc.

Areas of Concentration,
Tool
Training, etc.

Additional three-hour, executive-level seminar offered for senior management

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Challenges

- Limited number of training sources available that meet agency requirements
- Dependence on instructor availability
- Difficulty in engaging mid-level management